

Housing Price Of King County



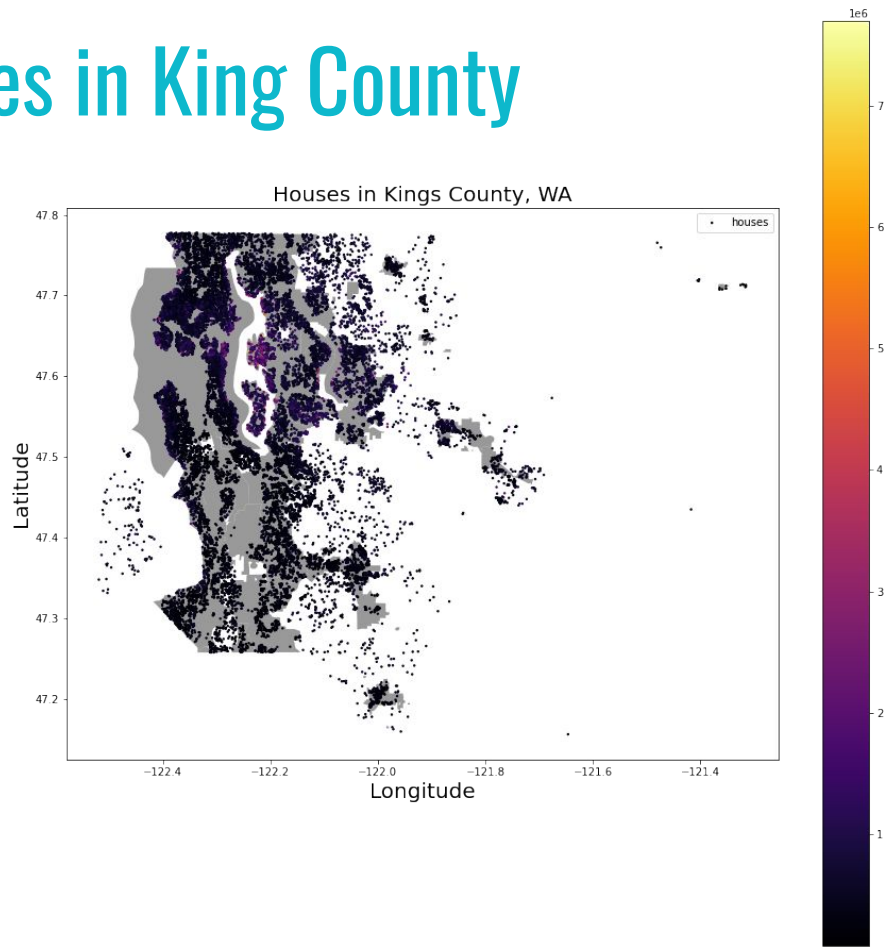
Overview & Business Problem

With data from 2014 to 2015 analyze house sales price in King County area by using regression modeling.

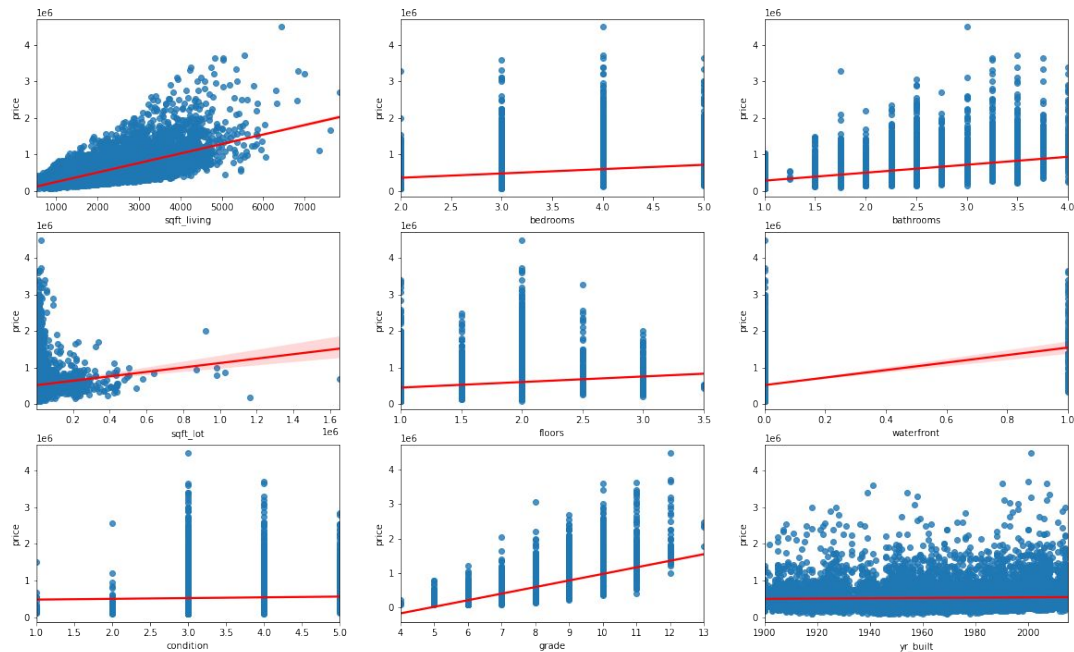
Questions:

- ▶ Do the prices of the houses sold differ depending on the city they're located in?
- ▶ Does renovation have an effect on house price?
- ▶ Do waterfront houses have higher prices than other houses?

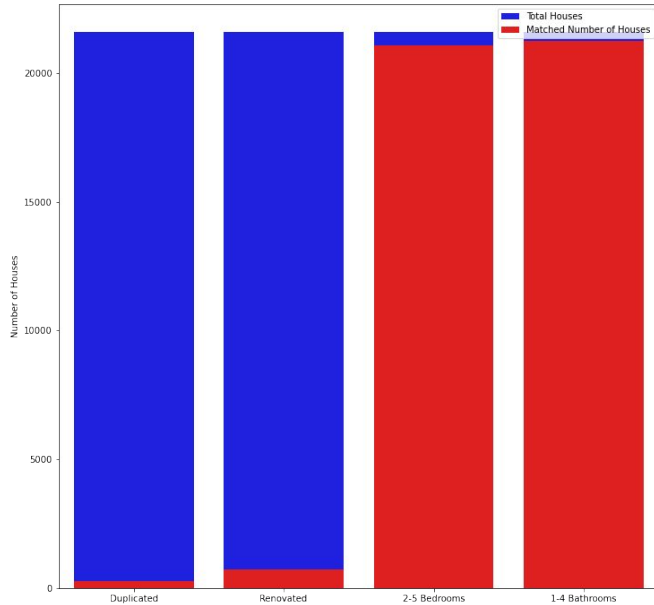
Houses in King County



Data Exploration

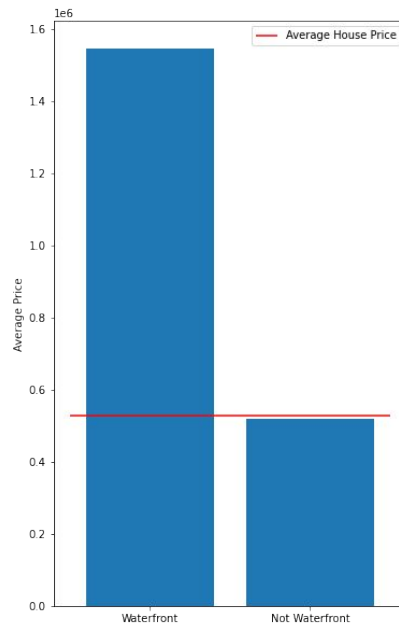
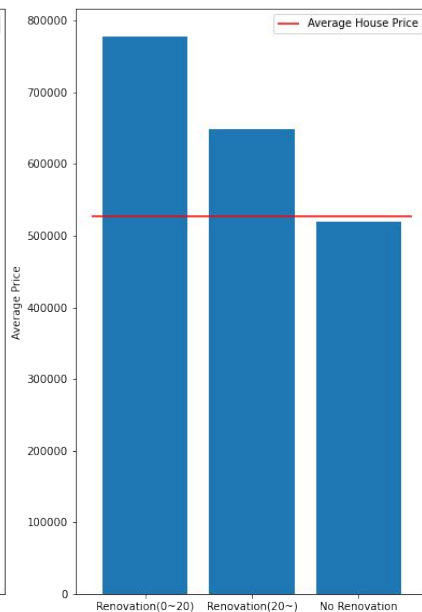
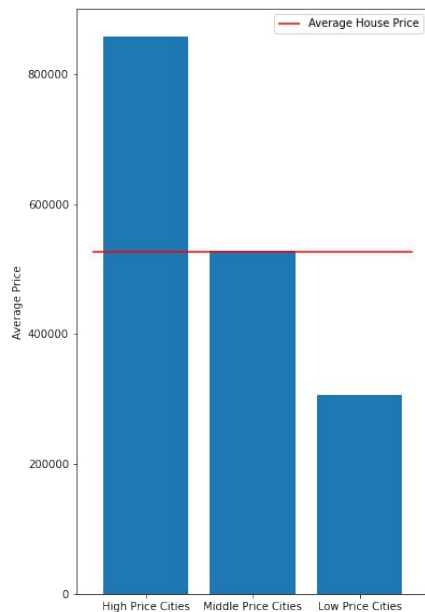


Data Exploration

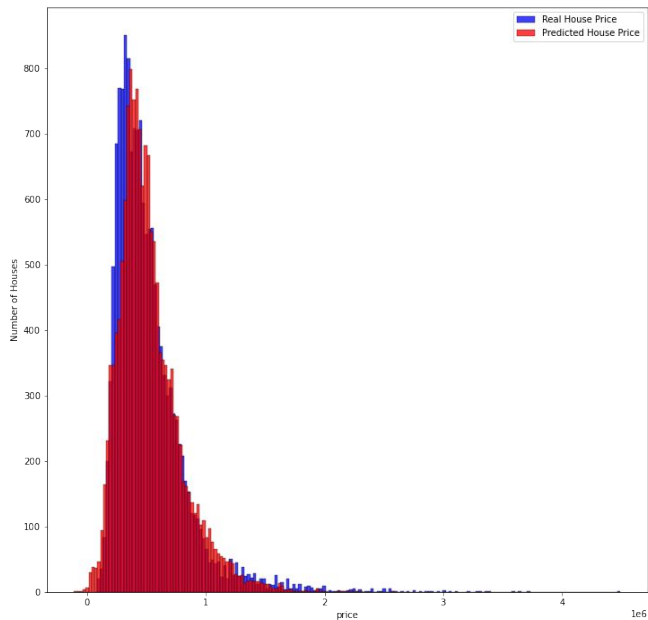


- 267 Duplicated houses
- 744 Houses are renovated
- 97.55% Houses have 2-5 bedrooms
- 98.42% Houses have 1-4 bathrooms

Feature Engineering



Histogram showing the predicted versus actual House Prices



- R_squared: 0.695
- Test RMSE: 189,719

Conclusion

Cities

The house prices in higher priced cities are \$128k higher while the house prices in lower priced cities are \$185k lower than middle priced cities'.

Renovation

The houses with less than 20 years between date sold and date renovated are \$82k higher than houses that were not renovated.

Waterfront

The prices of waterfront houses are \$650k higher than other houses.

Next Steps

- Find the way to reduce RMSE, condition numbers in the regression model.
- Find the effect of other external factors
 - Quality of schools
 - Crime rate
 - Proximity to transportation, malls, grocery stores, etc.

